



1619  
PATENT  
P-5504

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: J. Bruce Pitner, et al. Conf.:  
Appl. No.: 10/039,799 Group: 1619  
Filed: January 4, 2002 Examiner:  
For: BINDING PROTEIN AS BIOSENSORS

#4  
J.B.P.  
4/10/03  
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INFORMATION DISCLOSURE STATEMENT  
(SUBMISSION AFTER FILING OF AN APPLICATION  
BUT BEFORE FINAL REJECTION OR NOTICE OF ALLOWANCE  
OR CONCURRENTLY WITH A RULE 53(d) CPA APPLICATION  
OR WITH A RULE 1.114 RCE APPLICATION)

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications, or other information submitted for consideration by the Office are listed on the PTO/SB/08A(s), attached hereto.

II. COPIES (check at least one box)

- a. ☒ Submitted herewith is a legible copy of (i) each U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; and (iii) all other information or that portion which caused it to be listed.
- b. ☐ Some or all of the documents listed on the PTO/SB/08A are not enclosed because they were cited in the International Search Report and copies should already be in the PTO file. If copies are needed, please contact the undersigned.

III. CONCISE EXPLANATION OF THE RELEVANCE  
(check at least one box)

a. ☒ **DOCUMENTS IN THE ENGLISH LANGUAGE**

The attached patents, publications, or other information in the English language do not require a statement of relevancy.

b. ☐ **DOCUMENTS NOT IN THE ENGLISH LANGUAGE**

A concise explanation of the relevance of all patents, publications, or other information listed that is not in the English language is as follows:

c. ☐ **ENGLISH LANGUAGE SEARCH REPORT**

An English language version of the search report or action that indicates the degree of relevance found by the foreign office is attached, thereby satisfying the requirement for a concise explanation. See MPEP 609(A)(3).

d. ☐ **OTHER**

The following additional information is provided for the Examiner's consideration.

FEES

IV. ☒ THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97(b):  
(check one box)

- a. ☐ within three months of the filing date of a national application (37 C.F.R. § 1.97(b)(1)). No fee or statement is required. (This section is not to be used with RCE's and CPA's).
- b. ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or statement is required.
- c. ☐ concurrently with the filing of a Continued Prosecution Application under 37 C.F.R. § 1.53(d) or concurrently with the filing of a Request for Continued Examination under § 1.114 (37 C.F.R. § 1.97(b)(4)). No fee or statement is required.
- d. ☒ before the mailing date of a first Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or statement is required.  
In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the statement under 37 C.F.R. § 1.97(e) below, or, if no statement has been made, charge our deposit account in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

V. ☐ THIS IDS IS BEING FILED UNDER 37 C.F.R. § 1.97(c):  
(check one box)

before the mailing date of a Final Office Action under 37 C.F.R. § 1.113 (See 37 C.F.R. § 1.97(c)(1)) or before the mailing date of a Notice of Allowance under 37 C.F.R. § 1.311 (See 37 C.F.R. § 1.97(c)(2)).

- a. ☐ No statement; therefore, a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).
- or
- b. ☐ See the statement below. No fee is required.

VI. STATEMENT UNDER 37 C.F.R. § 1.97(e) (check only one box)

The undersigned hereby states that

- a. ☐ each item of information contained in the IDS was first cited in any communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS; or
- b. ☒ no item of information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the IDS.
- c. ☐ Some of the items of information were cited in a communication from a foreign Patent Office. As to this information, the undersigned states that each item of information contained in the IDS was first cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby states that no item of this remaining information contained in the IDS was cited in a communication from a foreign Patent Office in a counterpart foreign application and, to the best of my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this statement.

VII. PAYMENT OF FEES (check one box)

- ☐ A check in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p) is enclosed for the above-identified fee.
- ☐ Please charge Deposit Account No. 02-1666 in the amount required by 37 C.F.R. § 1.17(p) for the above-indicated fee. A triplicate copy of this paper is attached.
- ☒ No fee is required.

Appl. No. 10/039,799

If the Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule and charge the appropriate fee to Deposit Account No. 02-2448.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Respectfully submitted,

By   
Jaconda Wagner, Reg. No. 42,207

Date: March 21, 2003

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Becton, Dickinson and Company  
1 Becton Drive, MC 089  
Franklin Lakes, New Jersey 07417  
(201) 847-6659

Enclosures: ☒ PTO/SB/08A  
☒ Documents  
☐ Foreign Search Report  
☐ Fee  
☐ Other:

**Complete if Known**

(use as many sheets as necessary)

Sheet	1	of	2
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Flowers Appear

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1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 2

### Complete if Known

Application Number 10/039,799

Filing Date January 4, 2002

First Named Inventor J. Bruce Phipps et al.

Group Art Unit 1619

Examiner Name

Attorney Docket Number P-5504

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### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	✓	JONES, MARK E. et al., "Bioremediation Monitoring Using Optical Fiber Long Period Grating (LPG)-Based Sensors", NSF Manufacturing Conference, Vancouver, January, 2000	
	✓	MOWBRAY, SHERRY L., et al., "Structure of the Periplasmic Glucose/Galactose Receptor of Salmonella typhimurium", Receptor, 1990, 1, 41-54	
	✓	VYAS, NAND K., et al., "Sugar and Signal-Transducer Binding Sites of the Escherichia coli Galactose Chemoreceptor Protein", Science, pp. 1290-1295, Vol. 242	
	✓	BHATIA, VIKRAM, et al., "Optical Fiber Long-Period Grating Sensors", Optics Letters, pp. 692-694, Vol. 21, No. 9, May 1, 1996	
	✓	BAIRD, CHERYL L., et al., "Current and Emerging Commercial Optical Biosensors", Journal of Molecular Recognition, pp. 261-268, 2001; 14, DOI: 10.1002/jmr.544	
	✓	TURCATTI, GERARDO, et al., "Probing the Structure and Function of the Tachykinin Neurokinin-2 Receptor through Biosynthetic Incorporation of Fluorescent Amino Acids at Specific Sites", The Journal of Biological Chemistry, pp. 19991-19998, Vol. 271, No. 33, Issue of August 16, 1996	
	✓	PISARCHICK, MARY LEE, et al., "Binding of a Monoclonal Antibody and Its Fab Fragment To Supported Phospholipid Monolayers Measured By Total Internal Reflection Fluorescence Microscopy", pp. 1235-1249, Biophysical Journal, Vol 58, November 1990	
	✓	GILARDI, GIANFRANCO, et al., "Engineering the Maltose Binding Protein for Reagentless Fluorescence Sensing", pp. 3840-3847, Analytical Chemistry, Vol. 66, No. 21, November 1, 1994	
	✓	TOPOGLIDIS, EMMANUEL, et al., "Protein Adsorption on Nanocrystalline TiO2 Films: An Immobilization Strategy for Bioanalytical Devices", pp. 5111-5113, Analytical Chemistry, Vol. 70, No. 23, December 1, 1998	
	✓	O'SULLIVAN, C.K., "Commercial Quartz Crystal Microbalances - Theory and Applications, pp. 663-670, Biosensors & Bioelectronics, 14 (1999)	

Examiner Signature

Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional).

<sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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